

# Power Transistor (100V, 8A)

## 2SD2607

●Features

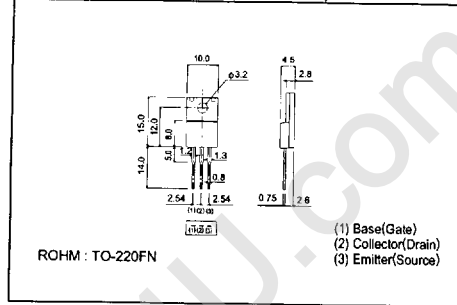
- 1) Darlington connection for high DC current gain.
- 2) Built-in resistor between base and emitter.
- 3) Built-in damper diode.
- 4) Complements the 2SB1668.

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V <sub>ceo</sub>	100	V
Collector-emitter voltage	V <sub>ceo</sub>	100	V
Emitter-base voltage	V <sub>ebo</sub>	7	V
Collector current	I <sub>c</sub>	8	A (DC)
		10	A (Pulse) *
Power dissipation	P <sub>c</sub>	2	W
		30	W (T <sub>c</sub> = 25°C)
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55--+150	°C

\* Single pulse, P<sub>w</sub> = 10ms

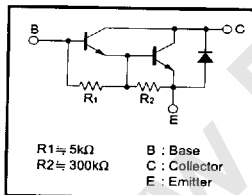
●External dimensions (Units: mm)



●Packaging specifications and hFE

Type	2SD2607
Package	TO-220FN
hFE	1k~20k
Code	-
Basic ordering unit (pieces)	500

●Circuit diagram



●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV <sub>ceo</sub>	100	-	-	V	I <sub>c</sub> = 50μA
Collector-emitter breakdown voltage	BV <sub>ceo</sub>	100	-	-	V	I <sub>c</sub> = 5mA
Collector cutoff current	I <sub>ceo</sub>	-	-	10	μA	V <sub>ce</sub> = 100V
Emitter cutoff current	I <sub>ebo</sub>	-	-	3	mA	V <sub>es</sub> = 5V
Collector-emitter saturation voltage	V <sub>ce(sat)</sub>	-	-	1.5	V	I <sub>c</sub> /I <sub>e</sub> = 3A/8mA
DC current transfer ratio	h <sub>FE</sub>	1000	-	20000	-	V <sub>ce</sub> /I <sub>c</sub> = 3V/2A
Transition frequency	f <sub>t</sub>	-	40	-	MHz	V <sub>ce</sub> = 5V, I <sub>e</sub> = -0.2A, f = 10MHz
Output capacitance	C <sub>ob</sub>	-	50	-	pF	V <sub>ce</sub> = 10V, I <sub>e</sub> = 0A, f = 1MHz

\*1 Measured using pulse current.

\*2 Transition frequency of the device.

**ROHM**